



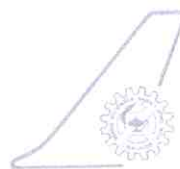
## **Indigenous Development (Phase-I) of High Speed Alternator with Rectifier Unit GTRE, Bangalore**

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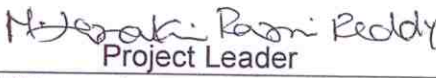

\*\* Former Head and Incharge Clocter Lab.

Project Document PR 1304  
January 2013



**National Aerospace Laboratories**  
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**PROJECT CLOSURE REPORT**

Division: Propulsion	Proj. No.:P-0-318	Proj. Leader: Janaki Rami Reddy M
Title / Sponsor: Indigenous Development (Phase-I) of High speed Alternator with Rectifier Unit GTRE, Bangalore		
Team Members: Veera Sesha Kumar C, Emandi Rajesh. Rajeshwari Natarajan, Nitesh Kumar*, Kulasekara pandiyan K, Dr S Ramamurthy**, Dr R Rajendran, Jayaraman M <ul style="list-style-type: none"> <li>* Technical Assistant, Presently working as Junior Engineer, IIIT Jabalpure</li> <li>** Former Head and Incharge CLOCTER Lab</li> </ul>		
Date of Start: Nov 2010	Original PDC: June 2011	Actual PDC: Oct 2013
Original Cost (Rs. L): 18.9	Revised Cost (Rs. L): NIL	Amount Recd (Rs. L): 9.2
Brief Summary of results: An Alternator for gas turbine engine application was designed as per the given specification of 4.5kW power at 30,000rpm. Analytical calculations and Magnetic field analysis were carried out to verify the design methodology. The alternator was driven with help of air turbines. The housing was appropriately designed to accommodate the alternator (stator and rotor), two air turbines on both sides and nozzles. Fabrication of alternator components, assembly and Integration was Carried out. The alternator was tested for several speeds up to the design speed of 30000rpm and its rated performance was demonstrated.		
<b>NAL-PD-PR-1304</b>		
Pending responsibilities With target dates (guarantees etc.)		NIL
Customer Satisfaction Evaluation Status: Action is initiated by KTMD to receive the feedback from the sponsor		
Signature with date		
 Project Leader		 Head of Division
(Space for KTMDs use)		
Recommended to be closed		Head, KTMD
Approved to be closed		Director